

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/578, 126  
Source: IFWP  
Date Processed by STIC: 05/16/2006

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 05/16/2006

PATENT APPLICATION: US/10/578,126

TIME: 09:31:47

Input Set : A:\11887-8 US Sequence Listing.txt

Output Set: N:\CRF4\05162006\J578126.raw

4 <110> APPLICANT: Perez, Pascual  
 5 Gutierrez-Marcos, Jose  
 6 Dickinson, Hugh  
 8 <120> TITLE OF INVENTION: MEG1 Endosperm-Specific Promoter and Genes  
 10 <130> FILE REFERENCE: 11887\*8  
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/578,126  
 C--> 12 <141> CURRENT FILING DATE: 2006-05-02  
 12 <150> PRIOR APPLICATION NUMBER: PCT/EP04/052760  
 13 <151> PRIOR FILING DATE: 2004-11-04  
 15 <150> PRIOR APPLICATION NUMBER: EP 03292739.4  
 16 <151> PRIOR FILING DATE: 2003-11-03  
 19 <160> NUMBER OF SEQ ID NOS: 64  
 21 <170> SOFTWARE: PatentIn version 3.2  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 370  
 25 <212> TYPE: DNA  
 26 <213> ORGANISM: Zea mays  
 29 <220> FEATURE:  
 30 <221> NAME/KEY: misc\_feature  
 31 <223> OTHER INFORMATION: promoter Meg1-1  
 33 <400> SEQUENCE: 1  
 34 agccagaatt gtaaccttgg gttttccac acctcaaata gatattgata tagttatata 60  
 36 gatagatata gcaaattcac caaataatat agaggtatag atatagatat aacaaggggt 120  
 38 atatatatag atatagatat atagaagata tagatggata gatagatatg atagaataga 180  
 40 atagataact tacaattttg tctaaaagag actaaatcac tgctaagttt ggtctttggt 240  
 42 gaatacttgc cagtgaattg gttttcgcta tagtatatat ataagtatac actcttctag 300  
 44 gattatagta tatataagta tacactcttc taggatcggt cgtgaggagt tccttaacat 360  
 46 ttcttgcgac 370  
 49 <210> SEQ ID NO: 2  
 50 <211> LENGTH: 415  
 51 <212> TYPE: DNA  
 52 <213> ORGANISM: Zea mays  
 55 <220> FEATURE:  
 56 <221> NAME/KEY: misc\_feature  
 57 <223> OTHER INFORMATION: promoter Meg1-2  
 59 <400> SEQUENCE: 2  
 60 atgagctctc gacacaggta ggtagtagta gagccagaat tgtaaccttg ggttttccca 60  
 62 cacctcaaat agatatagat atagggatat agatatagat agcaaattca ccaaataata 120  
 64 taggggtata gatatagata taagaagggg tatagatata gatatagata tatagaagat 180  
 66 atagatagat agatatagat gatagaatag ataacttaca attttgtcta aaagaaacta 240  
 68 aatcactgct aagtttggag tagcatatct ttggtgaata cttgctagtg aattggtttc 300  
 70 cgctatagta tatatatata agtatacact cttctaggat tatagtatat atatatatat 360  
 72 aagtatacac tcttctagga tcaatcgtga ggagttcatt aaattgtctt gcgac 415

CP9-6)

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Input Set : A:\11887-8 US Sequence Listing.txt

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75 <210> SEQ ID NO: 3
76 <211> LENGTH: 376
77 <212> TYPE: DNA
78 <213> ORGANISM: Zea mays
81 <220> FEATURE:
82 <221> NAME/KEY: misc_feature
83 <223> OTHER INFORMATION: promoter Meg1-3
85 <400> SEQUENCE: 3
86 tcgaggtcga cggtatcgat aagcctcaaa tagatataga tatagggata tagatagata      60
88 tagcaaattc accaaataat ataggggtat agatatagat ataagaaggg gtatagatat      120
90 agatatagat atatagaaga tatagataga tagatagata tgatagaata gataacttac      180
92 aattttgtct aaaagaaact aaatcactgc taagtttgga gtagcatatc tttggtgaat      240
94 acttgctagt gaattggttt ccgctatagt atatatatat aagtatacac tcttctagga      300
96 ttatagtata tatatatata taagtataca ctcttctagg atcaatcgtg aggagttcat      360
98 aaaattgtct tgcgac                                     376
101 <210> SEQ ID NO: 4
102 <211> LENGTH: 121
103 <212> TYPE: DNA
104 <213> ORGANISM: Zea mays
107 <220> FEATURE:
108 <221> NAME/KEY: misc_feature
109 <223> OTHER INFORMATION: nucleotides 1 to 121 of promoter Meg1-1
111 <400> SEQUENCE: 4
112 agccagaatt gtaaccttgg gttttcccac acctcaaata gatatggata tagttatata      60
114 gatagatata gcaaattcac caaataatat agaggatatag atatagatat aacaaggggt      120
116 a                                                         121
119 <210> SEQ ID NO: 5
120 <211> LENGTH: 414
121 <212> TYPE: DNA
122 <213> ORGANISM: Zea mays
125 <220> FEATURE:
126 <221> NAME/KEY: misc_feature
127 <223> OTHER INFORMATION: MEG1-1 cDNA
129 <400> SEQUENCE: 5
130 cgtgaggagt tccttaacat ttcttgcgac atggagtaca aaaagagggt ggatgcgcta      60
132 gtgtttttct ctttacttct cctaggatac tttgctgctc atgcgcatgg ggctgaagaa      120
134 ggaattttgc gagaaaaaag agcacaatgc gctcaagggt ttcttccatg caaagataac      180
136 aagtgtact gttgcattgg gggccgaact catgattgct actatacgat ggctcagtgt      240
138 agtcatgcat gcttctaate aaaaattaag atcactgttt ttatatacaa tgtaatggta      300
140 ggcaatgcta ttaataatac ataagggaat tttagttttg gtattagaat ttttctgatt      360
142 gacgaaattt agtcagaccg atactagagg cttaaaaaaa aaaaaaaaaa aaaa          414
145 <210> SEQ ID NO: 6
146 <211> LENGTH: 75
147 <212> TYPE: PRT
148 <213> ORGANISM: Zea mays
151 <220> FEATURE:
152 <221> NAME/KEY: MISC_FEATURE
153 <223> OTHER INFORMATION: MEG1-1
155 <400> SEQUENCE: 6

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157 Met Glu Tyr Lys Lys Arg Val Asp Ala Leu Val Phe Phe Ser Leu Leu
158 1          5          10          15
161 Leu Leu Gly Tyr Phe Ala Ala His Ala His Gly Ala Glu Glu Gly Ile
162          20          25          30
165 Leu Arg Glu Lys Arg Ala Gln Cys Ala Gln Gly Phe Leu Pro Cys Lys
166          35          40          45
169 Asp Asn Lys Cys Tyr Cys Cys Ile Gly Gly Arg Thr His Asp Cys Tyr
170          50          55          60
173 Tyr Thr Met Ala Gln Cys Ser His Ala Cys Phe
174 65          70          75
177 <210> SEQ ID NO: 7
178 <211> LENGTH: 383
179 <212> TYPE: DNA
180 <213> ORGANISM: Zea mays
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature
185 <223> OTHER INFORMATION: Meg1-2 cDNA
187 <400> SEQUENCE: 7
188 tcggcacgag gctacatgga gtacagaaag aggggtggatg cgctagtgtt tttctcgtta      60
190 cttctcctcg gatactttgc tgctcatgca catgggaagg gtcatgtcac agatgatgtc      120
192 ggtgttttcta ctccagctaa agaaggaatt atgcaaggaa acggagcacg atgcgttgta      180
194 ggggtttcctc catgcaaaga taacaagtgc tactgctgca ttggggggcg aactcatgct      240
196 cgctactcta cgatggctga gtgtagacat gcctgcttct aaacacaaat taagatcgct      300
198 gttattatat acattgtaat ggtaggtaat gctattaata atatatggga attttagttt      360
200 tggtaaaaaa aaaaaaaaaa aaa      383
203 <210> SEQ ID NO: 8
204 <211> LENGTH: 88
205 <212> TYPE: PRT
206 <213> ORGANISM: Zea mays
209 <220> FEATURE:
210 <221> NAME/KEY: MISC_FEATURE
211 <223> OTHER INFORMATION: MEG1-2
213 <400> SEQUENCE: 8
215 Met Glu Tyr Arg Lys Arg Val Asp Ala Leu Val Phe Phe Ser Leu Leu
216 1          5          10          15
219 Leu Leu Gly Tyr Phe Ala Ala His Ala His Gly Lys Gly His Val Thr
220          20          25          30
223 Asp Asp Val Gly Val Ser Thr Pro Ala Lys Glu Gly Ile Met Gln Gly
224          35          40          45
227 Asn Gly Ala Arg Cys Val Val Gly Phe Pro Pro Cys Lys Asp Asn Lys
228          50          55          60
231 Cys Tyr Cys Cys Ile Gly Gly Arg Thr His Ala Arg Tyr Ser Thr Met
232 65          70          75          80
235 Ala Glu Cys Arg His Ala Cys Phe
236          85
239 <210> SEQ ID NO: 9
240 <211> LENGTH: 786
241 <212> TYPE: DNA
242 <213> ORGANISM: Zea mays

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245 <220> FEATURE:
246 <221> NAME/KEY: misc_feature
247 <223> OTHER INFORMATION: MEG1-3 cDNA
249 <400> SEQUENCE: 9
250 ggcacgagga ggagttcctt aaatttttctt gcgacatgga gtacagaaaag aggggtggatg      60
252 cgctagtgtt tttctcgta ctcctcctca gatactttgc tgctcatgca catgggaagg      120
254 gtaagtgcta ctgctgcatt gggggcgaatg tagggtttcc tccatgcaaa gataacaagt      180
256 gctactgctg cattgggggg cgaactcatg ctcgctactc tacgctggct gagtgtagtc      240
258 atgcctgctt ctaaacaaaa attaatgatca ctgttattat atacattgta atggtaggta      300
260 atgctattaa taatatatgg gaatttttagt tttgggatta tacttttttc caattcacga      360
262 aataccttct aaaacctggc gtgacaggtg gcatagcagg agtggagggc agcgacggct      420
264 gcacagcgct gcatgcagtg gcttgcattht gtagctcctc gttggcgatg cgtgtgagac      480
266 caagagctct cggcacagac aggtcatgtc acagatgatg tcggagtttc tactccagct      540
268 aaagaaggaa ttatgcaagg aaacggagca cgatgcgatg tagggtttcc tccatgcaaa      600
270 gataacaagt gctactgctg cattgggggg cgaactcatg ctcgctactc tacgctggct      660
272 gagtgtagtc atgcctgctt ctaaacaaaa attaatgatca ctggtattat atacattgta      720
274 atgggtaggt aatgctatta ataatatatg ggaatttaag ttttggtatt aaaaaaaaaa      780
276 aaaaaa
279 <210> SEQ ID NO: 10
280 <211> LENGTH: 72
281 <212> TYPE: PRT
282 <213> ORGANISM: Zea mays
285 <220> FEATURE:
286 <221> NAME/KEY: MISC_FEATURE
287 <223> OTHER INFORMATION: MEG1-3, first ORF
289 <400> SEQUENCE: 10
291 Met Glu Tyr Arg Lys Arg Val Asp Ala Leu Val Phe Phe Ser Leu Leu
292 1          5          10          15
295 Leu Leu Arg Tyr Phe Ala Ala His Ala His Gly Lys Gly Lys Cys Tyr
296          20          25          30
299 Cys Cys Ile Gly Gly Asp Val Gly Phe Pro Pro Cys Lys Asp Asn Lys
300          35          40          45
303 Cys Tyr Cys Cys Ile Gly Gly Arg Thr His Ala Arg Tyr Ser Thr Leu
304          50          55          60
307 Ala Glu Cys Ser His Ala Cys Phe
308 65          70
311 <210> SEQ ID NO: 11
312 <211> LENGTH: 667
313 <212> TYPE: DNA
314 <213> ORGANISM: Zea mays
317 <220> FEATURE:
318 <221> NAME/KEY: misc_feature
319 <223> OTHER INFORMATION: MEG1-4 cDNA
321 <400> SEQUENCE: 11
322 aagaccacca cccttgccga atccggcacc catgccatgc ccacttccac cgccaaggcc      60
324 atcgccgccc ccaagaccac cacccttgcc gaatccggca cccatgccat gtccacttcc      120
326 accaccaagg cccccgccgc caccagcacc gtagccacta ccgccgccaa gaccaccacc      180
328 gcctttgccc aatccaccac ccatgccatg cccaattcca ccacctttgc catggcctcc      240
330 acccatgcca tggccaatgt cgcctccgag tccgccacct ttgccaatgc caccaccaag      300

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332 gccaccgcct tttcttaaat tgtcttgcca catggagtag agaaagaggg tggatgcgct 360
334 agtggttttc tcgttacttc tcctcggata ctttgctgct catgcacatg gaaaggctaa 420
336 agaaggaatt atgcaaggaa acggagcacg atgcgttggt gggtttcctc catgcaaaga 480
338 taacaagtgc tactgttgca ttggggggcg aactcatgct cgctactcta cgatggctga 540
340 gtgtagtcat gcctgcttct aaacaaaaat taagatcgat gttattatat aaattgtaat 600
342 ggtaggtaat gctattaata atatatggga attttagttt tggttaattaa aaaaaaaaaa 660
344 aaaaaaa 667

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347 &lt;210&gt; SEQ ID NO: 12

348 &lt;211&gt; LENGTH: 76

349 &lt;212&gt; TYPE: PRT

350 &lt;213&gt; ORGANISM: Zea mays

353 &lt;220&gt; FEATURE:

354 &lt;221&gt; NAME/KEY: MISC\_FEATURE

355 &lt;223&gt; OTHER INFORMATION: MEG1-4

357 &lt;400&gt; SEQUENCE: 12

359 Met Glu Tyr Arg Lys Arg Val Asp Ala Leu Val Phe Phe Ser Leu Leu

360 1 5 10 15

363 Leu Leu Gly Tyr Phe Ala Ala His Ala His Gly Lys Ala Lys Glu Gly

364 20 25 30

367 Ile Met Gln Gly Asn Gly Ala Arg Cys Val Val Gly Phe Pro Pro Cys

368 35 40 45

371 Lys Asp Asn Lys Cys Tyr Cys Cys Ile Gly Gly Arg Thr His Ala Arg

372 50 55 60

375 Tyr Ser Thr Met Ala Glu Cys Ser His Ala Cys Phe

376 65 70 75

379 &lt;210&gt; SEQ ID NO: 13

380 &lt;211&gt; LENGTH: 621

381 &lt;212&gt; TYPE: DNA

382 &lt;213&gt; ORGANISM: Zea mays

385 &lt;220&gt; FEATURE:

386 &lt;221&gt; NAME/KEY: misc\_feature

387 &lt;223&gt; OTHER INFORMATION: MEG1-5 cDNA

389 &lt;400&gt; SEQUENCE: 13

390 tgcagggatg gctggctatg gtgttgatgg tcagcgtatg atgggtggtg ttggtatgga 60

392 cagcagaggg atgggatatg gtggcagacc tgagccacct cttccgctg atgcatcaag 120

394 cactctatat attgagggtc tacctgcaaa ctgcacacga cgggaggttt cacatatatt 180

396 tcgcccattt gttggttttc gtgaagttcg tcttgtaaac aaggagtcca gacatcctgg 240

398 tggagatcca catgtgttgt gtttcgtcga ttttgacaac cctgctcagg ctacaattgc 300

400 tctggaagca ttacaaggtc atgtcacgga tgatgtcaat gtttctgctc cagctgaaga 360

402 aggaattttg cgagaaaaaa gagcacaatg cgctcaaggg tttcttccat gcaaagataa 420

404 caagtgtctac tgttgcatg ggggccgaac tcatgattgc tactatacga tggctcagtg 480

406 tagtcatgca tgcttctaata caaaaattaa gatcactgtt tttatataca atgtaatggt 540

408 aggcaatgct attaataata cataagggaa ttttattttg gtattagaat ttttctgatt 600

410 gacgaaaaaa aaaaaaaaaa a 621

413 &lt;210&gt; SEQ ID NO: 14

414 &lt;211&gt; LENGTH: 142

415 &lt;212&gt; TYPE: PRT

416 &lt;213&gt; ORGANISM: Zea mays

419 &lt;220&gt; FEATURE:

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/578,126

DATE: 05/16/2006  
TIME: 09:31:48

Input Set : A:\11887-8 US Sequence Listing.txt  
Output Set: N:\CRF4\05162006\J578126.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:20; Xaa Pos. 2,3,4,5,10,11,12,13,14,15,16,17,19,20,21,22,24,25,26

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40

Seq#:41,42,43,44,45,46,47,48,49,50,54,55,56,57,59,60,61,63,64

**VERIFICATION SUMMARY**

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Input Set : A:\11887-8 US Sequence Listing.txt

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0

L:593 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:16